MIGHTY 1945 JUNE

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EVERYTHING the fruit grower wants and needs in a tractor is built into McCormick-Deering Orchard and Grove Tractors. They are planned and designed for his specific requirements.

Streamlined shielding prevents the tractors from damaging low-hanging branches and fruit. Yet they are completely accessible for inspection and adjustment.

Low platforms, upholstered seats, and convenient controls make these tractors easy to operate.

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We can't make all the McCormick-Deering Orchard and Grove Tractors to fill the demand now because of wartime restrictions. See your International Harvester dealer about servicing your present tractor. If he can't supply you with a new machine, he'll help you keep your old one going until V day brings more new tractors to the orchards and groves.

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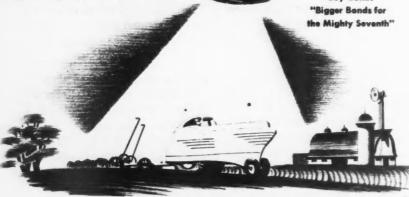


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DEPENDABLE

CHAMPION SPARK PLUGS

NUT GROWER NEWS

BASIN METHOD OF NUT TREE CULTURE

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METHOD of establishing nut trees on eroded sloping land not suitable for clean cultivation has been developed and described recently in volume 50 of the Iowa Academy of Science by J. M. Aikman and C. C. Lounsberry of the Iowa Agricultural Experiment Station and the Soil Conservation Service of U.S.D.A.

The culture of black walnuts in the middle west has generally been limited to floodplain sites or comparable sites with equally good soils. These sites are usually in demand for other more profitable farm crops. Hence, a method that makes it possible to establish black walnuts or other nut trees on partially eroded slopes may be very useful. The basin method described is especially valuable for fence rows and other odd pieces of ground not suitable for planting nut trees in rows on the contour.

The basins in which the trees are set are made at right angles to the slope by scalping the sod from the basin area and using it to sod the lower rim of the area which has been built up with soil taken from the basin. The basins are arranged in a staggered manner across the slope so that a basin is located below the space between any two basins in the row above. This complete coverage of the slope prevents the loss of any appreciable amount of water from runoff. The finished basin is rounded in outline on the lower side and in general shape is slightly more than a half circle with the ends of the basin somewhat attenuated. The basins are about 6 feet long by $3\frac{1}{2}$ feet wide and average about 8 to 10 inches in depth from the top of the rim.

The subsoil from the tree hole is used in building the rim on the down-hill side of the basin. Topsoil is used to replace the subsoil removed from the tree hole to make a good planting place for the trees.

During the five years the trees have been under observation their growth rate has compared favorably with that of similar trees on the floodplains, and on plowed contour strips. The trees have fruited somewhat earlier than cultivated trees on the floodplain, several bearing 4 or 5 nuts the third year and some more than a dozen each the

GEORGE L. SLATE, Sec'y, Northern Nut Growers Assn., Geneva, N.Y.

Page 4 American Fruit Grower

fourth year.

June, 1945

LETTERS TO THE EDITOR

V-Mail from France

Dear Sirs:

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This vicinity of France that I'm in reminds me mostly of York State and New England, but I would much prefer to be

in York State or New England.

The fruit trees that I've seen are in a very sorry state. Most of them look as if they've never seen a spray in all of their existence, nor a pruning hack or saw. They look as if they wouldn't produce a peck to a tree. I notice a lot of the dwarf varieties at some of the better kept places. I saw some apples in a store a week or so ago that wouldn't even be used for cider back home.

APO 513, New York T/5 Roland La Croix-

Thanks for your interesting report on fruit growing in France. We hope it won't be too long until you're back in York State again.—Editor.

Small World

Dear Sir:

The letter from S. E. Sizemore, Cobb, Ky. (see April, 1945 issue) is of particular interest to me because I am the direct descendant of Gabriel Cerre, St. Louis, Mo., who you say is the originator of the Horse

Apple which grew in his garden. Gabriel Cerre married Catherine Giard of Kaskaskia, whose daughter, Marie Therese Cerre married Auguste Chouteau, whom history records as the First Citizen of St. I am Auguste Chouteau's great-Louis. grandson.

On my father's place, Cleremont in Jefferson County, Missouri, many varieties of apples, peaches and grapes were grown commercially and I have an indistinct recollection that Horse Apples were among the varieties grown: All of which is very interesting to me.

Vincennes, Indiana John Napier Dyer

It is certainly strange how in this wide universe one can always find a connecting link somewhere. We can readily see where Mr. Dyer inherits his claim to being a great fruit grower. Mr. Dyer was Pres-ident of the Indiana Horticultural Society from 1929 to 1932, as well as serving one term in the State Legislature. Mr. Dyer had at one time extensive plantings of both peaches and apples in Knox County .- Ed.

A Consumer Talks

Dear Editor:

It seems to me that fruit growers do a lot of hard work, and solve a great many problems, and then they do not do the one thing needful to change their product into money. They do not tell the buyer enthusiastically about the variety they wish to

There are perhaps several reasons for this strange lack of "punch" which would sell more fruit: (1) With all the problems the grower has he may overlook the selling end. (2) Growers generally produce several varieties and wish to sell them all, and enthusiasm for one variety may cut out the sale of other varieties. The result is that what we buyers have offered to us are "apples" or "pears" or "plums" or "grapes." (3) Good growers are over modest about the superiority of any one or two varieties. They know each variety by its technical shortcomings. That attitude may be scientific, but it is certainly a poor

attitude to take to market with your product. (4) There is a conservative belief, that the true merits of a variety will eventually come to light, as they have done in the past. Probably they will, but that does not sell your product next season.

If I were marketing fruit, I would rubber stamp three things on every container:
(1) The name of the variety (2) The name of the grower and (3) Recommendations for use. Then it would no longer be a question of will we buy or not, but which kind we prefer.

Rochester, New York Walter Dutton

The AMERICAN FRUIT GROWER has always advocated more advertising on the part of the individual fruit grower and a more systematic method of marketing when it comes to varieties. See the October, 1941 issue of AMERICAN FRUIT GROWER for a study on U. S. standards and state regulations on grading and marking apples. All growers should make a thorough study of existing state and U. S. grading regulations.—Ed.

Sheepnose Apple

Gentlemen:

As a boy in Western North Carolina there was a very delicious apple generally referred to in the community by two names. Some called it "Sheepnose" and some referred to it as the "Banana" apple. It is my recollection that it was a deep red when fully ripe and that it was somewhat long and pointed on the bloom end and doubtless that prompted the name "Sheepnose." had a flavor that prompted the name "Banana." I cannot recall the season of year that this apple ripened, although it is my recollection that it was a summer apple.

I am anxious to get a couple of these trees for a home orchard that I am putting out and anything that you can do to identify that apple under its recognized name together with the name of a nursery that has it for sale will be appreciated. Washington, D. C. Glenn F. Morgan

Sheepnose is a name which has been apsheepnose is a name which has been applied to many varieties. Evidently people saw some resemblance between these "long" shaped apples and the nose of a sheep. We doubt whether any nursery in this country propagates a variety under the name of Sheepnose. If there were, perchance, two nurseries which were propagating Sheepnose, it is more than an even bet that they would be propagating two different varicties .- Ed.

In Defense of Oranges

Gentlemen:

Answering Mr. Charles W. Landes in the April issue where he says, "Apples are not alone in this catalog. Oranges, peaches, bananas, etc., are all picked and packed so green that the average user never knows what ripe or even nearly ripe fruit tastes like," I would like to say that Mr. Landes is wrong about oranges.

When we buy oranges from the packing houses, they have that tree-ripened flavor, although they have been processed by a suds bath and a coat of wax. But when we buy them from retail stores, that tree-ripe aroma is missing. Fragrance in nature is usually a fleeting pleasure.

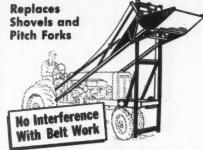
I know bananas come very green, but oranges are actually picked ripe.

Northridge, California Maud A. Minthorn

Thanks for your defense of oranges in

that age-old controversy of ripe versus unribe fruit.-Ed.

New OTTAWA Tractor LIFT



Makes quick and easy moving of agricultural lime, manure, dirt, sand, snow, corn, oats, barrels. Lifts machinery for loading and unloading on truck or trailer. Builds ponds. Hoists baled hay to loft or pile—pulls posts. Takes the backaches out of piling lumber, poles, etc. Does a hundred jobs and saves thousands of man hours.

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PREVENT BRUISES and STEM PUNCTURES!

The Wenatchee Fruit Picking Bag has an endless The Wenatchee Fruit Fricking hag has an endices steel frame to keep bag open for easy access. For tender fruits it adjusts to half-bushel capacity and opens to full bushel size as needed. Empries from the bottom with "E-Z OFF" snap. Fits body comfortably, has wide adjustable web suspenders and is reinforced with leather at points of wear.

Due to Scarcity, See Your Orchard Supply Dealer Today.

SCHEFFER & ROSSUM CO., MANUFACTURERS ST. PAUL 1, MINN.

Pointers Pickers



Pick cherries with both hands, reaching in toward the tree trunk and picking toward you.



The palm of the hand with the little fings a receptacle or cup to hold the picked de



The apple stem joins the spur at a noticeable joint. Spur injury reduces next year's crop.



In order not to injure the spur, put thumb or finger at joint. Don't press apple with fingertips.



While pressing thumb or finger against joint, lift apple up. Pick fruit with unhinging motion.



The stem breaks away from sper joint, leaving fruit spur unhand with stem attached to the spir



ake hold of the peach so that cushons of fingers and not ends touch ruit. Remove fruit by pulling outrard from branch with slight turn.



Unless "color picking," pick tree cleen as you go. Pick low fruit first so that dropped fruit will not knock off lower fruit.



For greater efficiency and sureness, keep your hands in front of you and your eyes on your hands. Always keep yourself well balanced.



Avoid straining positions at pick. Stretching to reach an wastes time and energy. Don't off fruit that can't be reach

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Page 7

HOW TO HANDLE A PICKING CREW

HERE is no work in the orchard which requires as much direction as does picking. Nor is there any work that pays dividends to the fruit grower as does intelligent management of harvesting crews. The reason for intelligent supervision, of course, is due to the need of employing inexperienced pickers, who usually think, because of their inexperience, that picking must be an easy job. To one who has never picked fruit before, it simply means the removing of the fruit from the tree . . . and the whys and wherefores known to the orchardist or the foreman are a vast mystery to the novice.

Some men and women are more agile in the use of their hands and seem to have a knack for picking. Those that are lacking in this faculty can be taught, and this is the job of the orchardist, the manager, or the foreman. Some pickers are most efficient when they pick only one apple at a time. Other pickers increase their efficiency by picking two or three apples in the hand for each delivery to the picking container. Far more important than the manner in which the fruit is picked, is the speed of each movement, but the greatest criterion of all is careful picking which results in unbruised fruit for the market. Careful picking, with ease and speed, is the job of the orchardist and his foremen.

The value of supervision during harvesting time cannot be overemphasized. Stanley Fulton, owner of the Fulton Orchards at Hancock, Maryland, stresses this point. Mr. Fulton has used German War Prisoners, as well as Bahamans, for harvesting, and he has found that if this inexperienced help can be used along with local experienced help, more satisfactory results can be obtained. lost important of all, he has found that it makes a great deal of difference in the amount and kind of work that is done if you have a good foreman. Mr. Fulton believes that perhaps supervision is the most important thing that draws the line between satisfactory and unsatisfactory use of the present inexperienced

Most growers and foremen use personal demonstration as a means of instructing inexperienced pickers, and some growers use a combination of demonstrations plus printed or mimeographed instructions which they either hand out to their pickers or post in a convenient and conspicuous place. The printed instructions without the demonstration would be of little value, so too much cannot be said about showing your crew just how to do it.

Donald F. Green, Manager of the Chazy Orchards, Chazy, New York, relates that at harvesting time he passes out printed instructions to pickers when they register for work. These instructions are supplemented with a talk by Mr. Green for five minutes each morning concerning particular points not covered in the instructions, or calling attention to

irregularities noticed by the foremen or himself the day before, or emphasizing certain parts of the instructions.

No machine has ever been devised to pick fruit, so it must be picked in the hand. But hand picking does not mean that it is not an intricate and specialized job. There are time and energy-saving motions in the technique of picking and it is up to the orchardist or foreman to teach this technique to inexperienced pickers, to change them from awkward ducklings into smooth and graceful

The grower who usually makes every effort to have not only adequate but good facilities for his pickers, and who goes out of his way to create a pleasant and cheerful atmosphere under which pickers can work, will find the results paying dividends. There are plenty of little things which the grower may not consider part of his job, but they may ultimately mean the difference between success and failure. For example, why not see that your pickers are protected from exposure when they are riding to and from the or-chard? Why not make sure that your picking crews have good drinking water and sanitary toilet facilities? If you, as the grower, are not supervising your own harvesting activities, choose your foreman wisely and urge him to closely supervise new pickers until they have acquired the desired technique.

To the foreman we say, the success of everything rests with you. It is your job to eliminate waste motion from your picking crews and to guide the inexperienced picker until he or she can work smoothly without unnecessary stops. You must always assure pickers that you are not only able, but more than willing to answer any questions about operations that are not clear to them, and then you must keep within hearing distance of all your crew members.

Since it has been proved that a basic essential for efficient work is adequate equipment, as well as the method of doing the job, it is up to the foreman to be sure that the

(Continued on page 8)

HINTS FOR FOREMEN

- 1. Show pickers:
 - a. How to put on picking bag.
 - b. How to adjust picking bag.
 - c. How to empty picking bag.
 - d. How to carry a ladder. e. How to set a ladder.

 - f. How to take hold of fruit and remove it from the tree.
 - g. Where to start picking.
 - h. How and where to arrange field boxes.
 - How full to fill field boxes.
- 2. Assure pickers that you will willingly answer all questions.
- Be sure equipment you assign pickers is in good condition.
- 4. Keep within hearing distance of your crew.
- 5. Tell pickers where drinking water and toilet facilities are to be found.
- 6. Explain checking system to pickers.
- Check number of boxes as each tree is finished.
- 8. Instruct pickers where to put dropped fruit.

equipment he assigns pickers is in good condition.

The efficiency of the worker is influenced by the picking arrangement of the boxes, the method of emptying apples into the boxes, and the method of moving and setting the ladder. All of these things must be explained and demonstrated to the inexperienced picker. If dropped fruit is to be picked up, tell your pickers where to put it. Explain your orchard's checking system to them, and check the number of boxes when each tree is finished. Assign pickers to their proper picking rows.

Since picking bags and ladders represent to the new picker just so much unwieldy equipment, demonstrate to them just how to put on the picking bag or bucket, and in the case of a picking bag, how to adjust the ropes. Show your pickers how to empty their picking bags or buckets into field boxes and explain to them that of all the orchard practices at harvest time, this one seems to be the most slipshod. If they realize that analyses of these operations have shown that as much as fifty percent of all bruising may occur in emptying the picking receptacle into the field crate or box, they will learn not to drop or dump their picked fruit. Make sure that pickers have only filled the field boxes level-full, so that fruit will not be bruised when the boxes are stacked.

Because it is the foreman's job to see that picking accidents are avoided, pickers should be given a thorough demonstration on how to carry a ladder and how to set a ladder. The picker will be able to accomplish more if he learns how to handle the ladder in the right way, and he will end up feeling fresher when the day is over. Show pickers how to find the balance point in their ladder, and

POINTERS FOR PICKERS

- Follow your foreman's instructions.
- 2. Trim fingernails closely to prevent puncturing fruit.
- Avoid overdoing it the first day.
- Line up field boxes before starting to pick.
- 5. Pick fruit on lower limbs first.6. Start up the ladder with
- empty bag.Pick with both hands, making every motion count.
- 8. Lay, don't drop, fruit in bag.
- 9. Fill bag level-full.
- Avoid bumping or rubbing bag against limbs or ladders.
- Pick tree clean as you go, unless color or size picking.
- 12. Pick from the lower to the upper part of the tree will each ladder setting.
- 13. Keep your eyes on your hands and your hands in front of you.
- 14. Pick all fruit within reach, but don't reach too far.
- Keep yourself well balanced at all times.
- 16. If some fruits cannot be reached, leave them on the tree; do not shake them off.
- 17. Place ladder in a safe sturdy position with both legs firmly on the ground, so that If it falls, it will fall into the tree.
- Lay, don't dump, apples in box when emptying picking
- bag.

 19. In transferring apples to a field box, do not fill above the edge of the box.
- 20. Keep picked fruit in the shade.
- 21. Wear sturdy sensible cloth-

then how to lift it at this point. It would be wise to check ladder settings of inexperienced pickers since most picking accidents are a result of not observing a few precautions. Make sure that the picker's ladder is placed against, a large branch or the crotch of the tree, so that if the ladder slips or turns it will fall toward the center of the tree. Make the picker conscious of checking to see whether or not his ladder is level and on solid ground, and demonstrate the proper way in which he should climb up and descend the ladder.

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Of all the harvesting operations that should be explained and demonstrated to your picking crew, the most important, of course, is the exact manner in which the fruit is removed from the tree. Don't merely show how it is done, but explain why the method is so important. A picker will only be a good picker when he or she understands why they are doing a certain thing. Explain how it takes several years to grow an apple spur, and that if the spur is pulled off or damaged by the picker, there will be no fruit the next year. Make pickers aware that all stem punctures will permit the entry of disease, and that if they cut the fruit with their finger nails or drop it into the picking receptacle, abrasions and bruises will occur. Whether you are picking apples, peaches, cherries, pears, or some other deciduous fruit, demonstrate the movement of the hand and wrist, and the proper method of unhinging the fruit from the tree. No matter what fruit is being picked, it should never be jerked or pulled from the tree.

Care in every orchard operation is important at harvest time, and it is your job as foreman to get this point

(Continued on page 17)

Improper setting often leads to accidents such as this. This picker did not follow the principles of ladder setting. Don't take chances.

When making short moves from one spot in the orchard to another, carry the ladder erect with the back leg on the side of ladder away from you.

Place ladder by pushing the back leg out toward the tree. Test the ladder to be sure it is placed solidly and on level ground.









-From picking suggestions by Washington State College of Agric

STOPS, LOOKS, AND LISTENS IN CODLING MOTH CONTROL

By JAMES S. AYARS

FOR 27 years, S. C. Chandler has been passing out helpful suggestions to orchardists of southern Illinois. As field entomologist of the Illinois Natural History Survey, he has spent over a quarter century in advising apple and peach growers about spraying and dusting, orchard sanitation, and other practices that help to improve the quality or quantity of fruit.

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But his activities have not been limited to giving advice. Stationed at Carbondale, near the heart of a southern Illinois fruit district, he had conducted many experiments of the conventional type to develop new methods of keeping insect populations down and orchardists' profits up.

By the time the heavy codling moth infestation of 1941 came along, Chandler had begun to wonder how some of his many suggestions fitted together. He wanted to know just how effective were the approved practices he and his fellow entomologists had been advocating for the production of clean apples. By 1942, he had started an experiment somewhat different from any he had tried before—an experiment on the codling moth with a sort of "Stop, Look, and Listen" technique.

For this experiment he chose 13

orchards, some good, some average, some decidedly below standard in the quality of apples they produced. Without telling any of the orchard owners or operators that they and their trees were being used as guinea pigs, he started his observations. Visiting the orchards frequently, he watched every operation that might influence codling moth control, asked questions, jotted down the answers, checked the results—and gave advice only when an orchardist cornered him and demanded help.

Orchards in the experiment ranged in size from 8 to nearly 200 acres. Located in four different counties, they were all in the three-brooded area where control of the codling moth is more difficult than farther north.

At the end of three years of observation, Chandler had a mass of figures. He knew how each of the thirteen orchards ranked with all the others in the production of apples free from worm holes and stings. Numbering the orchards from 1 to 13, best to worst, he studied the sanitation and pruning practices in each, the spray schedules, the insecticides used, the equipment, the attitude of the owner, and a dozen other facts. What he learned is of interest not only to the

apple growers of southern Illinois but to fruit growers everywhere who want to analyze, check, recheck, and improve their methods of insect control.

"If Illinois growers," Chandler says, "knew all the reasons for their successes and failures and could incorporate the good practices and eliminate the poor, codling moth control over the state would be much simplified and the quality of our apples improved."

Methods used in three or four best orchards are worth studying—and perhaps following. In the three years, orchard No. 1 had an average of only 1.1 percent of its apples wormy. Orchard No. 2 averaged 2.1 percent wormy apples. No. 3 averaged 2.7 percent.

Methods used in the orchards with the poorest records are almost equally worth studying—but not following. Orchard No. 13 had 53.7 percent of its apples wormy. No. 12 was almost as bad, with 52.5 percent.

Among the factors that Chandler studied in their relation to codling moth control in the 13 orchards were carry-over of the insect from the previous year, orchard sanitation, kinds of insecticides used, timing of applications, attitude of grower, equipment for applying insecticides, and amount of insecticide deposit on fruit.

Orchard sanitation and carry-over were closely related, the study showed. The growers who did the best jobs of orchard cleanup had usually the lowest carry-over.

"It appears," says Chandler, "that orchard sanitation is at least as important as spraying."

Two insecticides were used by operators of the 13 orchards, lead arsenate and nicotine—usually fixed nicotine. Lead arsenate alone was used in orchards No. 1 and No. 2. Also in No.

(Continued on page 18)

Poor penetration of spray in trees that are not well opened will result in apples with the spray material on one side only. Apples at left show evidence of spray material, while the same group of apples pictured at the right from the opposite side, show that they did not receive the spray material. Center: A tower that is taller than the usual one enables one of the operators to fog the tops of large trees.







Ever Since Eve

There has been a lot of talk about apples as far back as man can remember but only recently has the effect of foliage on yield been well recognized. A healthy, vigorous tree with plenty of leaves produces more and better fruit. At least 30 to 50 leaves per apple are needed for best results.



Unit costs are rapidly reduced when yields are increased from a low average of 200 bushels to the more desirable average of 350 bushels per acre. One way to better yields is to conserve tree vigor and to keep the foliage healthy. Black Leaf sprays, effective but non-caustic, help protect foliage.



BLACK LEAF 155

controls leafhoppers and some leaf miners as well as codling moth . . . lets healthy leaves build profits. That means premium prices for

high quality fruit.

Experienced growers say its performance makes it profitable.

TOBACCO BY-PRODUCTS & CHEMICAL CORP. **INCORPORATED · LOUISVILLE 2, KENTUCKY**

THE LEAF ON THE PACKAGE

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available at this time. In view of this we suggest

that the grower conserve

his nicotine supply for

his most important pro-

tective sprays of the

growing season.

Custo berries their se tween fresh f person is done prices f on a ne extends it now maximi exist o change users fr berries reflecte

An Apple a Day

Purchase programs to help conserve the large supply of under-size and under-grade apples now in storage are being launched by WFA, mostly in the Eastern areas. WFA will buy all dried apples produced from the 1944 crop and offered at ceiling prices, provided designated support prices were paid growers. In addition WFA will buy at ceiling prices vinegar from 1944 crop apples which were bought from growers at \$1 per 100 lbs. since April 1 this year. WFA will also buy apple chops and other apple products made from apples prior to January 1, 1946, at 14 cents per lb. In an effort to hasten consumption of midget size apples, WFA urges housewives to buy them for canning, the fall crop prospects being down.

Lots of Peaches

The biggest peach crop in Georgia's history is expected to start rolling around the first of June. This means full utilization is vital—particularly in preserving, making pickles, etc., because 68 percent of the 1945 pack of commercially canned peaches will be set aside for Government purchase.

New Ceiling on Tangerines

Country shipper ceiling price for interior Florida tangerines has been increased from \$4.61 to \$4.72 for a 1-3/5 bushel container. This action, effective through August 31, 1945, will result in retail ceilings increasing about a quarter of a cent a pound. The action is mandatory under the Stabilization Act, which provides for ceiling increases when yields are reduced by adverse growing conditions. The Florida tangerine crop has been substantially reduced by damage caused by the October, 1944

Freezing Limitation

Custom freezers of fresh fruits and berries may not charge more for their services than the difference between the purchase price for the fiesh fruits or berries paid by the person for whom the custom packing is done and their own maximum prices for sales of the frozen product on a no-storage basis. This action extends an existing provision so that it now applies even where neither maximum nor recommended prices exist on the fresh products. This change is designed to stop industrial users from buying frozen fruits and berries at prices higher than those reflected in freezers' ceilings.

NATIONWIDE NEWS

Apple Order. Terminated

The War Food Administration has terminated War Food Order No. 121 under which handlers of fresh apples grown and located in Washington and Oregon have been required to set aside their holdings of certain varieties to meet military and war service needs. These needs are now substantially fulfilled. The order originally covered all strains of the Winesap, Newtown, and Delicious (except Golden Delicious) varieties.

11th Annual Meeting

The National Apple Institute will hold its 11th Annual Meeting at the Washington Hotel, in Washington, D. C., on Friday and Saturday, June 15 and 16.

ODT restrictions on conventions limits the attendance to the meeting this year to fifty people. For this reason, invitations were sent to each member organization, asking them to select two individuals to attend the Annual Meeting.

Picking Wages

Maximum wage rates for picking summer apples and for general orchard work have been established to apply in Chelan, Douglas, and Okanogan Counties, Washington.

The new rates provide for a maximum of eighty cents an hour for picking summer apples when either housing or transportation is furnished, or eighty-five cents per hour when neither is supplied by the employer. For general orchard work for all fruit, the same rates apply.

Save Cloth Bags

One of the shortages which is likely to be encountered by farmers in 1945 is the lack of all types of bags. The shortages will include bags used to pack feed, flour, fertilizer and practically all other farm products.

The supply is so short that every farmer and orchardist is urged to search his granery, barn or any other building in which bags might be stored. If the supply of bags recovered are needed, retain them; but if more are found than will be needed. the farmer should immediately contact dealers of used bags and make known the supply he has to offer.

Frozen Grapefruit Juice

The Grapefruit Industry Board

has announced that impetus has been given the frozen grapefruit deal with the production and marketing of frozen juice in a large mid-western area, and with the disclosure that a new frozen foods plant is scheduled to be built in Phoenix, Arizona.

Premium markets have been found for the frozen product in Wisconsin, Illinois and Michigan, with dairy firms taking care of most of the distribution. No details are available on the projected Phoenix plant at this time, but the backers of the new venture say that the freezing of . grapefruit juice will be an important part of the operation.

Sugar for Processing

OPA has arranged for the release of sugar from federal stockpiles to processors, so that the large quantities of apples from the 1944 crop that have been accumulating storage charges until near the end of the season, can be converted into various products by processing plants in the East. The entire stock in cold storage undoubtedly will not thus be utilized, however.

OPA has ruled that the sugar released for apple butter will be charged against next season's quota. The processing of the 1945 crop is not expected to be seriously affected by this decision since the crop will be relatively light, due to recent freeze and frost injury.

Record Cherry Crop

In the Yakima valley, cherry cropprospects are the best in years, and this district will have the largest production ever harvested, if present expectations of fruit men are realized.

The bases of this prediction are found in the fact that the trees are in unusually good condition, that the bloom was the heaviest ever known, and that frost damage has not reduced this crop in the least.

Agricultural Award Program

The complete rules and conditions for the \$37,500 Agricultural Award and Scholarship Program, recently announced by The James F. Lincoln Arc Welding Foundation of Cleveland, Ohio, are now available in printed form.

This project is designed to encourage more intensive study of farm maintenance with a view toward obtaining the many economies available by use of arc welding in repairing broken and worn equipment and tools, and for building various structures which add to the efficiency of agricultural operation.

Awards for papers and scholarships in agricultural engineering are offered. For full details, write the secretary of the Foundation.





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footwear that is tough -giving long wear, abrasion resistance.



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UNITED STATES RUBBER COMPANY

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PLANS FOR CENTENNIAL MEETING

AT the Roanoke, Virginia, convention held December 5-6-7, 1944. held in joint session with the Virginia State Horticultural Society, it was noted that in 1948 the American Pomological Society would celebrate its 100th anniversary. A committee was appointed in part by Pres. T. J. Talbert to begin work on plans for the centennial meeting. It was suggested that it would be most appropriate to hold the centennial celebration in the state where the A.P.S. came into being in 1848.

The place of origin and the manner in which the A.P.S. was organized was clearly stated by Dr. J. C. Blair, Urbana, Illinois, 1931, in an address at the joint meeting of the A.P.S. and the Illinois State Horticultural Society at Springfield, Illinois, December 13-15, 1933. The following paragraphs are selected from Dr. Blair's

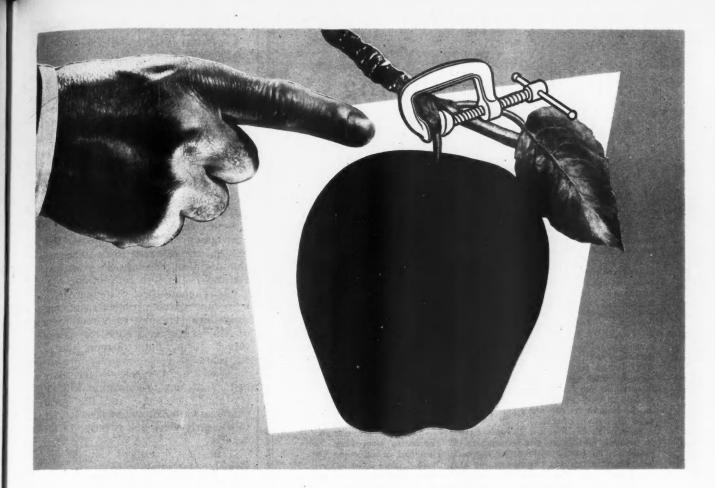
address:

"Nowhere in the entire history of American agriculture is there a more important development than that of American horticulture, especially in the field of pomology. It is true that the acreage and the total value of the pomological products are not comparable with that of wheat, cotton, and corn. Nevertheless, the total value to the progress of our people has been even more important. We long ago learned that a healthy race of people could not be evolved without the products of the fruit and vegetable plantations; or, even, I might add, the ornamental aspects of the subject.

"The evolution of pomology in the United States is intimately woven into the history of our country. In the early days it was largely a matter of individual effort. However, at a remarkably early date the value of organized effort was quickly recognized, as indicated by the springing into existence, almost simultaneously, the efforts of two groups in New York and other eastern states.

"The first meeting of one group was that at Buffalo, September 1, 1848. The other, October 10, of the same (Continued on page 14)

American Fruit Grower



BY USING STAFAST* Pre-Harvest Spray!



growers Choese Stafast because it is a proven hormone spray that holds apples or pears on the trees longer, cuts down windfall losses, and steps up grades. Growers know that the preharvest Stafast application pays for itself many times over because they have seen more of their money fruit go to market. The simple reason is that the fruit is given more of that important extra time on the trees to get deeper color and increased size!

And Another Thing that means real money to fruit growers is the fact that Stafast helps to spread out picking time, thus easing the labor problem; ... practically eliminates "spot picking."

Here's Why Stafast Gives high efficiency it's bigb in active ingredients . . . it's the hormone spray with napthalene acetic acid plus! So be market-wise . . . be ready with Stafast. Order it from your dealer today.

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Building Enduring Agricultural Markets

Nine Proven Methods for Increasing Demand for Farm Produce

YOU as producers and we as distributors know that the day is fast approaching when instead of markets seeking food, food will be seeking markets. That fact poses an important problem for every individual whose livelihood depends upon the production and distribution of the food America eats.

Fortunately, agriculture is in a stronger position today to face the postwar changes than it was after the first World War. Farmers have been handling their wartime gains more wisely, profiting from the mistakes of the past. The "consolidated balance sheet" of America's six million farmers shows healthy assets—assets which have increased many billions of dollars since 1940.

To preserve these gains and build, for the future, individual farmers are examining their investments in land, livestock, farm equipment and buildings. They are studying better ways of farm management, production practices and marketing—for they know that each of these will play an important role in shaping their future.

buildings. They are studying better ways or farm management, production practices and marketing—for they know that each of these will play an important role in shaping their future.

In the final accounting, each season's success or failure will be influenced in the future, as it has been in the past, by the producer's ability to find markets. Therefore agricultural leaders are giving much thought to the ways and means that will contribute to better sales of farm products.

As distributors who, for 85 years, have devoted our time and energies to serving producers and consumers by constantly improving the marketing of food, we share your profound interest in achieving the best possible postwar conditions for agriculture. Long experience—yours and ours—has shown that certain fundamental principles must be followed so that housewives throughout the nation will want to buy, and be able to buy, the products of the nation's farms.

Actually, these principles constitute a set of objectives toward which

Actually, these principles constitute a set of objectives toward which progressive growers and distributors have been working. Among the most important of these are:

- 1. Emphasizing production of the varieties and quality consumers prefer.
- 2. Reducing waste and spoilage on the farm, in transportation, in the warehouses, in the stores and in the homes.
- 3. Improving grading, packaging and refrigeration methods.
- 4. Developing the chemurgic possibilities of the plants and foods which do not now go into human consumption but may have a farm value when utilized for animal feeds and industrial uses.
- 5. Improving transportation, warehouse and marketing facilities.
- 6. Adopting better display, advertising and merchandising practices.
- 7. Streamlining distribution, eliminating unnecessary in-between handling costs and routing produce as directly as possible from farm to housewife's kitchen.
- 8. Increasing and improving facilities to supply growers with marketing information.
- 9. Improving and increasing, where needed, canning and processing plants.

In cooperation with the U. S. Department of Agriculture, Land Grant Colleges, the State Departments of Agriculture and the Agricultural Extension Service in the various states, A&P and other progressive distributors and growers are preparing now for the years ahead through projects designed to bring agriculture closer to these objectives.

through projects designed to bring agriculture closer to these objectives.

The teamwork and cooperation so clearly evidenced in these mutual projects is already paying dividends to producers and to consumers as well. As this principle of teamwork is even more widely applied, more and more producers and distributors will be better able to accomplish our mutual job of feeding America better today, and at the same time helping build a sound future for all agriculture.

ATLANTIC COMMISSION COMPANY, Inc. Affiliate of

THE GREAT ATLANTIC & PACIFIC TEA COMPANY

PLANS FOR CENTENNIAL MEETING

(Continued from page 12)

year, in the city of New York. Out of these two groups, known as the North American Pomological Convention and the American Congress of Fruit Growers, there developed at the Syracuse Convention in 1849, their amalgamation in what was ever after to be known as the American Pomological Society.

"Although the American Pomological Society did not function under its present name until the Cincinnati Convention of 1850, its medals and reports date as from 1848. This organization is therefore 85 years old and this is the 49th convention.

"Throughout these years there have been but twelve presidents and but three during the first forty-nine years of its existence. Nine presidents served during the remaining thirtysix years.

"One cannot speak of the early history of this organization without profound reverence for the great characters who contributed so largely to the early work and prestige of the Society.

"The first President, Dr. W. D. Brinckle, although a physician, was one of the important contributors to American Pomology, both as a writer and a distributor of plants. He served well and was followed by the Honorable Marshall P. Wilder, of Massachusetts. Wilder was president for thirty-five consecutive years. He served with distinction and dignity, and he brought to the support of the organization all the leading pomologists of the country.

"The greatest service which has been rendered through this long period of time by the American Pomological Society has been the uniting in a harmonious way all of the state and national forces having to do with pomology. The very fact that it has existed and worked uninterruptedly through this long period is sufficient to commend it to all thinking men even if there were no other reasons.

"The Fruit Catalogue of the American Pomological Society has been a recognized authority since the Philadelphia Convention of 1852. It is a careful classification of the better varieties of apples, pears, peaches, plums, and other fruits.

"Any one who is interested in the details regarding the accomplishment of the Society should read the speaker's address at Roanoke, Virginia, in the report of 1929."

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Secretary

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STATE NEWS

ARKANSAS—We had here this spring our earliest fruit blooming season in twenty-four years and experienced growers were fearful that the weather would earliest itself. It did.

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reverse itself. It did.

Temperatures as low as twenty-four degrees in places caught young peach trees, apples in bloom, grape shoots out and strawberries beyond the dormant stage. The results may be tabulated in percentages of full crops as follows: Apples, 35%; grapes, 70%; strawberries, 80%; peaches in northwest Arkansas, 10%; remainder of state, 85%.—Thomas Rothrock, Sec'y, Springdale.

ILLINOIS—Fruit prospects in western Illinois and eastern Missouri are excelent. Even peaches promise a nice crop for what few orchards we have. Due to the rainy, windy March and April quite a few growers didn't get all their scab sprays on and there is some scab showing up. Apples seem to be setting but growth has been rather slow, the same with peaches.

The carry over of codling moth larvae is the heaviest on record and it looks like trouble ahead. However, lots of growers have been spraying their trees, labor permitting.—C. C. Mast, See'y, Quincy.

EANSAS—Frequent rains, low temperatures, and orchard grounds too soft to permit the use of heavy spray rigs have been the prevailing conditions over the state. Many orchards did not receive the pre-bloom sprays; hence, the danger of scab.

A good bud on most all fruit trees and very heavy blossom gave promise for a large fruit crop for Kansas, but late frosts and continued cold rains which had a tendency to stop or check insect pollination, may revise these prospects downward.—Geo. W. Kinkead, Sec'y, Topeka.

MARYLAND—The freeze of April 5th and 6th caught the majority of apples in full bloom and peaches in early shuck stage. The damage to these crops was still in doubt in late April. The injury varied with variety, location, tree vigor, degree of bloom, etc., and in some sections the crop was hard hit. However, the total injury was not believed to have been too severe and growers were hopeful of a fairly good crop.

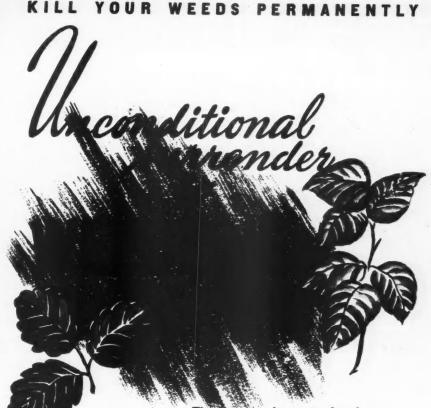
fairly good crop.
A. F. Vierheller, Extension Horticulturist, College Park.

MASSACHUSETTS—In many orchards there are enough live buds now (May 1), mostly from late bloom, to give a fair crop if the majority of them set fruit. However, the weather for the past week has been cold with more or less rain and this has interfered greatly with bee flight. It seems doubtful that pollination will be very successful.

On the basis of our present knowledge, it would seem that the damage to the fruit crop in Massachusetts may total 50 percent or more. Damage to strawberries was confined largely to early blossoms.—Lawrence Southwick, Massachusetts State College, Amherst.

MICHIGAN—Michigan, like many other states, experienced a very early spring but on the dates of April 14, 21, and 28 severe freezes occurred in our various fruit sections which caused tremendous damage to the various fruit crops. Weath—(Continued on page 16)

Page 15 American Fruit Grower June, 1945



The worst weeds run up the white flag when Weedone blasts them . . . leaf, stem, branch and root.

Weedone is the new, successful approach to weed killing. It produces a condition in reverse to natural growth.

Poison ivy, poison oak, bindweed, Japanese honeysuckle, sassafras, black locust and choke cherry—common orchard and field soil pests—yield completely to Weedone application.

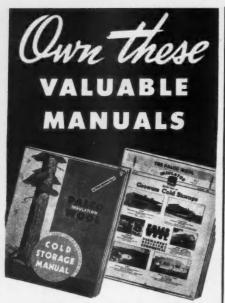
Before maturity, such weeds as cocklebur, blackberry, Canada thistle, yarrow, dandelion, plantain, sumach, oxalis, chickweed, horse nettle, sheep sorrel, ragweed, white clover, French weed, and sweet clover, are highly susceptible to Weedone action.

Ask your ORTHO fieldman or Experiment Station for recommendations for local conditions. Desirable grasses are damaged, but not killed by Weedone. Soil fertility is retained. Weedone residue is not hazardous to livestock or pets.



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STATE NEWS

(Continued from page 15)

er has been very cool and windy during the past ten days, making conditions unfavorable for pollination. It is still too early to estimate with any accuracy the extent of our fruit crops for 1945, but it is doubtful at this time if the Michigan apple crop can amount to more than six million bushels comparing favorably with our short crop of 5,800,000 bushels in 1943.

—H. D. Hootman, Sec'y, East Lansing.

MISSOURI—The frost damage to the fruit crop that occurred on or about April 4th was confined almost entirely to south-central and southwest districts.

Apples were damaged worst but in most orchards it is believed that fair to good crops are in prospect. Peaches generally show about as much damage as apples, but some orchards still have a fair set of fruit. Early varieties of all fruits suffered worst.

Grapes, strawberries, blackberries, raspberries, and dewberries were not injured seriously and there are still prospects for a good crop of these fruits.

Elsewhere in the State the damage was slight. In the main peach producing district, southeast Missouri, no material damage was done. Prospects for other fruits throughout the state indicate generally good crops at this time.—T. J. Talbert, Missouri College of Agriculture, Columbia.

NEW HAMPSHIRE-The 1945 crop prospects for fruit in New Hampshire received a severe set-back from freezes during the latter half of April. With unusually warm weather in the latter part of March and early April, the blossom buds advanced to the point where they were about a month ahead of their usual development. Fruit growers realize that they were likely to encounter real diffi-culty and were not surprised when tem-peratures dropped down to 23° and thereabouts in many sections of the state. At the time of the second freeze, a heavy wind caused damage to nearly all orchards, whether in low areas or not. It was estimated that from 60% to 75% of the blossoms were killed, although to the casual observer, when the blossoms opened, they still looked to be in good condition. The center of the blossoms on a great many of them, however, was The situation was further aggrakilled. vated by cold wet weather during the bloom, which certainly was not satisfactory for pollination. The actual loss canof course be determined until after the June drop, but there is no doubt that the loss has been severe.—Alfred L. French, Sec'y, Concord.

NEW YORK—Fruit trees came into full bloom one month ahead of normal. Frosts have reduced the apple crop, but it is too early to know the amount of damage. Reports indicate practically 100 percent killed in the Champlain Valley, which produces less than 5 percent of the apples in New York State. In the Hudson Valley, reports indicate about 25 percent of a full crop, or one-third to one-half as many as last year. In western New York, the freeze damage to apples has been light in the intensive fruit belt. Some scattered orchards further from the Lake have had a high proportion of the buds killed. However, pollination weather in western New York has been very poor, and this is likely to cut the crop of McIntosh more than the low temperature.





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JUNE BUD BEACH and YEAR-OLD APPLE

for the Wholesale Trade.

Now accepting orders and grow contracts for the 1945-46 season. Write For Prices.

P. O. BOX 34 SMITHVILLE, TENN.

Sour cherries have been hit the hardest by the low temperature. Growers reports on April 30 indicated from one-third to one-half crop.

Indications are that the size of the peach crop has not been cut to any important extent by the low temperature.—T. E. La Mont, Associate Secretary, Albion.

INDIANA—The recent cold spells have damaged fruit considerably. Reports indicate that Indiana will have a 50 percent strawberry crop, 50 to 75 percent apple crop, and about 75 percent for peaches. Damage is scattered and growers report most damage in orchards in low ground.

Strawberry irrigation in southern Indiana is being done to very good advantage by Gus Ahrens, Huntingburg. He used ordinary ooze hose but this year has installed an overhead system on a couple acres.—K. I. Fawcett, Sec'y, Lafayette.

(Continued on page 21)

Page 16 American Fruit Grower

une, 1945

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Page 17

HOW TO HANDLE A PICKING CREW

(Continued from page 8)

across to your picking crew. On the surface of things, it seems to be such a simple matter to pick fruit, but to do it in a really efficient and effective way is far from simple. For this reason, the AMERICAN FRUIT GROW-ER has sought the help of fruit growers, fruit associations and agricultural extension services in compiling the diagrams, "Hints for Foremen" and "Pointers for Pickers" that you find here. The Extension Service in California has issued quite a number of leaflets covering instructions which include the picking of several kinds of fruit. Many of these have been published in Spanish and German for foreign labor, as well as in English.

The Agricultural Extension Service of the State College of Washington has prepared two outstanding folders containing apple and peach picking suggestions. The Delaware Experiment Station has mimeographed two helpful lists containing suggestions to foremen and fruit pickers. The subject of fruit harvesting has been touched upon in a bulletin of the Colorado Experiment Station, and the Agricultural Extension Service of the University of Vermont has printed an excellent pictorial study, entitled, "Pick Apples Carefully—Handle Them Like Fores"

"Some Suggestions for Inexperienced Apple Pickers" has been issued in mimeographed form by the Pomology Department of Massachusetts State College; the West Virginia Extension Service has written material containing suggestions on picking apples; and the Apple Growers Association of Hood River, Oregon has published similar material. Cherry picking suggestions have been covered in bulletins issued by the Extension Service of the University of Idaho and the College of Agriculture at Madison, Wisconsin.

We do not believe that the subject of careful picking and expert handling of picking crews can be overemphasized!

THE LEGEND WHISPERED

By Dougall MacArthur is an interesting story of fruit growing in the State of Washington. The struggle with insect pests, the difficulty of meeting federal spray residue tolerances, and the triumph ultimately of organized effort is vividly told. A delightful story which all fruit growers will enjoy reading. Sent postpaid on receipt of \$2.50.

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A Stevedore Jr. takes the "grunt" and fatigue out of heavy lifting and makes light work of it. This labor-saving equipment will save you man-hours in handling time in loading, stacking and elevating operations. Portable . . . easily rolled to the job . . . handles boxes, baskets, crates or bags of produce. Lifts 225 pounds distributed load weight at rate of 50' per minute and plugs in on standard 110 volt lighting circuit. Two models are designed for your needs, both equipped with patented "Cam-lock" standards that adjust easily to a range of operating conditions . . . from 18" level to delivery height of 64". Write for more information today so you can make light work of heavy lifting.

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CODLING MOTH CON. TROL

(Continued from page 9)

11 and No. 13! In most orchards lead arsenate was used early and nicotine late in the season. Either insecticide, or a combination of the two, is capable of giving good control of the codling moth, Chandler concluded. Other factors, he felt, were more important than the kind of insecticide

Orchardists who made no attempt to time their spray applications with codling moth emergence were at the bottom of the group. Operators of orchards No. 1 and No. 2 timed their first cover spray to coincide with the first codling moth emergence, as determined by an emergence cage kept by one of the growers. However, Chandler decided after studying the records of all 13 orchards that in a three-brooded area exact timing is not so important as the proper spacing of sprays, such as occurs in a comprehensive spray schedule.

Some of the orchardists benefited from exact timing late in the season. But in orchards No. 1 and No. 2 most trees received no sprays after the first week in July. Here the battle for control was over when the second brood attack was just beginning in other orchards. Here low carry-over, excellent orchard sanitation, and thorough first brood spraying had so reduced the codling moth forces that they could not counterattack success-

fully. Most of the 13 orchardists maintained a progressive attitude toward their insect problems. Most of them attended fruit growers' meetings, read good fruit periodicals and other publications, sought information from leading growers and experimental workers. Operators of the three best orchards were especially notable for their progressive attitudes. But so was the owner of orchard No. 12! Progressive attitude alone does not assure success as an apple grower, but it helps.

Both quality and quantity of spraying equipment were reflected directly in results obtained in most of the orchards. Orchards No. 1 and No. 4 were especially notable for excellent equipment. In orchards No. 11 and No. 12, the equipment was inadequate in both quantity and quality. Orchard No. 10 proved that good equipment alone is not enough.

The well-known importance of a heavy load of insecticide on the fruit during the period the insect is attacking was re-emphasized by Chandler's stop, look, and listen experiment. Orchardist No. 1 used 4 pounds of lead

Page 18 American Fruit Grower

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arsenate and 3 quarts of summer oil per 100 gallons, instead of the 3 pounds of arsenical and 2 quarts of oil commonly used. In several of the orchards, increases in the concentrations of spray materials resulted in larger percentages of worm-free apples.

Neither the number of applications per season nor the number of gallons of spray per tree was a direct measure of success, Chandler found. Orchard No. 1 averaged five applications and No. 13 received two. Orchards No. 2, 6. 7, and 10 averaged nine applications. Orchards No. 3 and 8 averaged

Although many experiment station workers have urged heavy gallonage, Chandler found the best orchardists using only moderate amounts of spray material per tree. Orchards No. 1, 2, and 5 averaged 12 gallons. Orchard No. 3 averaged 9 gallons. Orchard No. 4 averaged 22 gallons, and orchard No. 6 averaged 18. Orchards No. 8 and 9 averaged 16 gallons, considerably greater gallonage than the two best orchards.

Openness of the tree, Chandler found, was closely associated with the effectiveness of the spray in relation to the gallonage. Trees in orchards No. 1, 2, 3, and 4 had been well opened to allow spray to reach all branches. In direct contrast in this respect were trees in orchards No. 10, 11, 12, and 13.

In only one of the four best orchards was a non-stop system of spraying used. A similar statement would apply to the four poorest orchards. The No. 2 orchardist, using the non-stop method, also used a tower. So did the No. 12 orchardist.

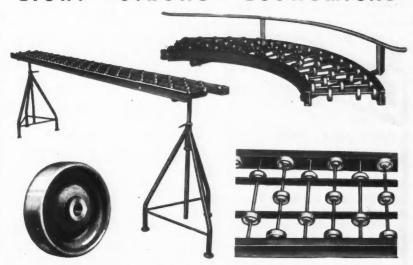
Chandler believes that a tower is a useful device when a non-stop system of spraying is used with a rig that can deliver about 35 gallons per minute. But it cannot be effective in an orchard that does not have trees well opened to allow the spray to penetrate to all branches.

In orchards No. 1, 3, and 4, a definite system was followed in spraying large trees. The operator first thoroughly sprayed the inside of the tree. Then he walked around the tree, spraying only the upper branches and "fogging it over the top." Finally he walked back around the tree to his starting point, spraying the lower branches as he did so. In small trees, the inside spraying was omitted.

Throughout his observations, Chandler was impressed with the fact that a good practice could often offset a poor practice, and conversely, that a poor practice could nullify the benefits of a good practice. Each grower, he

(Continued on page 21)

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From where I sit ... by Joe Marsh

Lee Mapes sticks his neck out

We had a meeting at the Town Hall Friday night, and when Homer Bently spoke up for a new roof for the schoolhouse. Lee Mapes interrupts him.

"How long you been in this township?" Lee demands.

"Fourteen years," says Homer proudly.

"Then you keep quiet!" says Lee. "We can't have transients running things in our township."

I'm glad to say that all of us voted Lee down and let Homer

have his say-glad, not just because the school did need a new roof, but because it doesn't do to let intolerance and prejudice creep into a community.

Whether a man's stayed put a lifetime or a year, whether he works with his head or his hands, drinks beer or buttermilk -so long as he's a good American he has a right to speak his mind, and have his opinions (however different they may be) respected.

Toe Marsh

500 ORCHARD HEATERS FOR SALE. TROBAUGH HOMESTEAD, West Frankfort, Illinois. FOR SALE—BEAN TWO-WAY CLEANER AND BUT-ler inspection table and grader, together with motors, \$250. WAGNER ORCHARDS, Henry, Illinois.

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DEPENDABLE FRUIT AND NUT TREES, SMALL fruits, Ornaments, and General Nursery Stock. Combined catalogue and Planting Guide free. CUMBERLAND VALLEY NURSERIES, INC., McMinnville, Tennessee. JUNE BUD PEACH. AM NOW ACCEPTING ORDERS for Fall delivery. Should have half million peaches for Fall delivery. Should have half million peaches for Commercial and wholesale trade. Write for prices. PARMERS WHOLESALE NURSERY, P.O. Box 34, Smithville, Tennessee.

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112 ACRES OVERLOOKING CAVUGA LAKE, CORNELL University, 3000 Apple and peach trees. Barns for 3000 hens. Modern residence. A real buy. JOSEPH OSKAMP, Ithaca, New York.

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SWEET POTATO PLANTS, OPENGROWN healthy stock, Nancy Hall, Porto Rico, Early and Southern Queen. \$3.00 per 1000 postpaid. Shipment. No order too large or too small. BAILEY BROS. PLANT FARM, Adairville, Kentucky. SWEET POTATO PLANTS. BIG. STRONG, WELL rooted Plants. 200, \$1.00; 500, \$1.50; 1000, \$2.75; 2500, \$6.75; 5000, \$13.00. D. & C. PLANT COMPANY, Gleason, Tennessee.

SWEET POTATO PLANTS—NANCY HALLS AND PORTO RICANS. Ready May First. Guaranteed count and quality. 2.75 per thousand. MARGRAVE BROTHERS, Gleason, Tennessee.

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EARLY BIRD TREE BANDS CHEMICALLY TREATED.
Kills the Codling Moth. Send orders early. EDWIN H.
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Page 20 American Fruit Grower

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CODLING MOTH CON-TROL

(Continued from page 19)

believes, must analyze his own situation and, if he must choose between methods, he should do so with full knowledge of the probable results.

In summarizing his three years of stopping and looking, Chandler lists four "listens" for apple growers who want to reduce the amount of codling moth damage

1. Reduce the population of codling moth to a low level by thorough sanitation methods in the orchard.

2. Open up trees well and spray them thoroughly.

3. Use a sufficient (but not excessive) amount of spray material on each tree.

4. Use efficient spray equipment,

and enough of it.

LL ed Dee. RS es ss. 4,

The ideal situation is the one in which the first codling moth brood is so well controlled that little spraving need be done for the second and third broods. Control of this kind cannot be attained in a single season, but it is not unattainable by the grower who will apply the stops, looks, and listens discovered by Chandler in his study.

"We frequently hear it said that the fruit grower should not attempt to raise late apples in a three-brooded area," Chandler remarks. "It is comforting to learn from this study that good control of the codling moth can be maintained year after year, not 50 miles from the southern tip of Illinois. with the materials now available and without excessive spraying.

STATE NEWS

(Continued from page 16)

TENNESSEE-Tennessee fruit growers would do well to watch the results of the first large-scale orchard irrigation project in the state. It is on the Swann farm, above Douglas Lake near Dandridge.

Swann's system was put into operation too late last summer to give a full account of itself on the apple crop, but Mr. Swann feels that it might well pay for itself in a single season. One Golden Delicious apple tree was fully watered during the dry season by a leak in the main line. This tree bore 18 bushels of good-sized, smooth well-finished fruit. Another Golden Delicious tree of equal size, age and set was so located that it could not be ir-rigated at all. It bore only a few bushels 50 small that they were, as Swann puts it, "hardly respectable cider stock." The 18 bushels of good apples sold at an average (wholesale and retail ceilings) of \$4.00-\$72 total, and it is doubtful whether the crop from the unwatered tree brought \$5. But this year, while the latter has only the barest sprinkle of fruit, the other has a heavy crop.

The system will furnish an acre-inch a week on 200 acres in all, and represents an outlay of \$50 an acre for installation, but the difference in crop sales from the two trees mentioned is more than enough pay for the entire acre installation!

A. N. Pratt, State Horticulturist.





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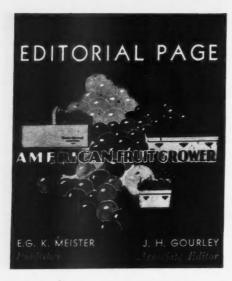
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Gambling on a Boom?

YOU KNOW men right in your own locality who are gambling. They're buying land, taking on debts, spreading out . . . in the hope of catching a few extra dollars now while money is easy and prices are high.

Recall the years during and after the last war? Recall how folks took on debts instead of paying them off . . . as though the high prices were sure to carry right on forever?

Sure you remember. And you remember what happened when prices started down!

Nobody has a right to tell you what to do with your money. But, if you're smart, you won't gamble it away.

You'll pay off your debts. Take out adequate life insurance. Lay up a reserve of War Bonds. And you'll put your place in top-production shape. Build up the land. Improve your varieties. Fix up your buildings.

Then no matter what happens after this war, you'll be in permanently better shape! A sure way to win without rick!

How Do We Stand?

NOW THAT THE WAR in Europe is over, we are all concerned with the rehabilitation needs of liberated nations, and just how these needs will affect matters here at home. Certain civilian supplies, already felt in acute shortage here, will be more seriously affected before we can expect relief to domestic consumers.

As they have demonstrated over the entire period of the war, the American people are not lacking in generosity, and they will not be found lacking in the face of further demands. But the people wish to be assured that the present situation is merely to tide over the immediate postwar emergency and is not suggested as a permanent policy. They want to be sure that steps are being taken to give impetus to the production of scarce commodities at home as soon as such is permitted

by the release of man power by war industries. The people want to be assured that an earnest effort is being made to restore industrial and agricultural production by those who are charged with the responsibility for rehabilitation in liberated areas. It is well to be thy brother's keeper, but one must also be sure that his own house is in order.

A Story for Fruit Growers

"THE LEGEND WHISPERED" is a story of fruit growing in the State of Washington. The early pioneers planted apple trees under ideal soil and climatic conditions and in a very short time, a giant orchard industry was founded. Growers thrived and enjoyed life. Then came trouble. Insects and particularly the codling moth challenged the growers right to a life of ease, comfort and profit. Spraying became a costly and never ending task. Then came a fatal blow in the form of a difficult federal residue tolerance. Embittered growers fought with federal inspectors and threatened bodily

Such is the background of a great novel written by a Washington fruit grower. The central theme is the intimate life of orchard families, their children and a delightful love affair between a charming daughter and an enterprising son of two grower families. Only youth would dare to challenge the right of government to arbitrarily fix a tolerance out of reach of growers and only a younger generation could triumph through organization.

"The Legend Whispered" was written by a fruit grower who had rich experience in orchard operations. The author, Dougall MacArthur, is a successful fruit grower who writes in a clear and interesting style. For sheer delightful reading, we suggest Dougall MacArthur's book, "The Legend Whispered."

Science and the Fruit Grower

NO GREAT INDUSTRY can maintain its standards and forge ahead without a large well-equipped and well-managed research division. The work of a research staff is to learn of new ideas and make them practical for general use. For example, scientists have learned the basic chemical structure of rubber and have used this knowledge to make new rubber products which have a much wider practical usage than those of a decade ago.

Horticulture is no different from any other industry. It too must maintain a modern well-equipped, efficiently managed research division. Contrary to industrial methods, the individual fruit grower is unable to maintain his own research staff. For this reason federal and state governments have put to worthy use the U.S.D.A. and the 48 state colleges and agricultural experiment stations. These institutions in addition to others constitute the fruit growers' research division.

MOR

From these institutions of research have come new and better varieties, improved methods of culture, better spraying practices, fruit thinning sprays, harvest sprays, more efficient orchard fertilization practices, improved cold storage facilities, better marketing conditions and countless other valuable practices to the fruit industry. Many ideas extremely valuable to the fruit grower have originated in industrial research laboratories

Growers the nation over have accepted the results of their research staff and have put into practice many of the new ideas the scientists have developed. The trust of fruit growers in their research men and the scientist's dependability upon the grower must continue if successes are to accrue to both.

Apples with Vitamins

APPLES ARE RICH in health-giving qualities, but recently one was discovered to contain approximately ten times the Vitamin C content as normally found in the apple. This apple, now under observation and improvement at the Geneva, New York Agricultural Experiment Station promises to become the basis for future apple breeding programs.

Those who are allergic to citrus fruits, excellent sources of Vitamin C, may find comfort in getting their Vitamin C requirements from apples. The variety apparently transmits its high vitamin content readily to its offspring, thus making it a valuable parent in apple breeding. Intensive research is being conducted to determine many of the unknown factors in the breeding of fruits for high vitamin content.

National Peach Council

THE NATIONAL PEACH COUNCIL report has been issued and it makes good reading. It is really encouraging to see a good foundation laid for national cooperation of peach growers. Better write Carroll R. Miller, Executive Secretary, National Peach Council, Martinsburg, West Virginia, for a copy of the booklet. And while we're speaking of cooperative action, the National Apple Institute has announced the formation of the California Apple Growers' Council composed of the apple growers of that state, and also, that this Council has joined up with the National Apple Institute. That's progress!

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what Ford offers you in that respect. Is it power? Ford's 100-horsepower V-8 engine is ready for your biggest job. Is it reliability? Where can you match Ford's forty-year fame for faithful performance? Is it economy? Ford thrift is acknowledged wherever wheels roll. Is it service-ease? There's rarely more than a very few miles between you and authorized Ford Service. Is it safety? Ford hydraulic brakes are BIG, and Ford, you'll recall, pioneered safetyglass as standard equipment.

 Under government allocation, present production of Ford Trucks is necessarily limited as to types, equipment and quantities for essential civilian needs. See your near-by Ford Truck dealer for free counsel in obtaining official certification of your requirements.

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to prevent premature dropping of apples and pea



ANOTHER SHERWIN-WILLIAMS RESEARCH DEVELOPMENT

To the proven efficiency of the Sherwin-Williams hormone spray STOP-DROP, has been added an amazingly efficient method of application—spraying by airplane as a better and more economical means of preventing premature dropping of apples and pears.

This revolutionary Sherwin-Williams research development, when thoroughly field tested in Wenatchee and Yakima Valley orchards of the Pacific Northwest astounded growers. They saw a plane flying 95 miles per hour just skimming the tree tops, banking and turning at the end of each row for the next sweep across the orchard, and actually spraying 40-acre blocks in two hours elapsed time, which would have taken a five-man crew a week to spray.

Amazing also is the effectiveness and economy of

spraying STOP-DROP from the sky. Only one pint of liquid was applied on large trees that would have required 25 to 40 gallons to completely cover by conventional ground method of spraying.

The oil emulsion type spray—S-W STOP-DROP—used in airplane spraying was concentrated 200 times more than that used for ground spraying. Each pint of liquid applied to each tree contained as much actual hormone as 25 gallons applied in the conventional manner. The pint of liquid was so finely atomized that literally millions of minute droplets settled on the fruit and foliage of the trees. The turbulence set up by the propeller of the plane caused the spray to drift down through the trees so completely that even the foliage and fruit on the lower inside of the tree received its proportion of spray.



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